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July 24, 1998

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M St., N.W.  
Washington, D.C. 20554

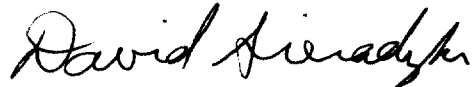
Re: **Federal-State Joint Board on Universal Service, CC Docket  
No. 96-45;**

**Western Wireless Corp. Petition for Preemption of Kansas  
Statutes and Rules**

Dear Ms. Salas:

Gene DeJordy, Executive Director of Regulatory Affairs, Western Wireless Corp., and Michele Farquhar, Ronnie London, and the undersigned of Hogan & Hartson, L.L.P., counsel for Western Wireless Corp., made *ex parte* presentations today regarding the proceedings referred to above to John Nakahata, Chief of Staff, Office of Chairman Kennard and Tom Power, Legal Advisor, Office of Chairman Kennard; and to Paul Misener, Senior Legal Counsel, Office of Commissioner Furchtgott-Roth. Brian Fontes of the Cellular Telecommunications Industry Association also attended the presentation to Mr. Misener. I am enclosing a copy of the materials used in connection with these presentations.

Respectfully submitted,



David L. Sieradzki  
Counsel for Western Wireless Corp.

Enclosures

cc: John Nakahata  
Tom Power  
Paul Misener

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# Universal Service

## The Wireless Solution

July, 1998

# Universal Service

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## The Wireless Solution

- Overview
- Universal Service Goals
- Wireless Universal Services
- Lower USF Costs
- Public Interest Benefits of Wireless Solution
- Challenges and Obstacles

# Overview

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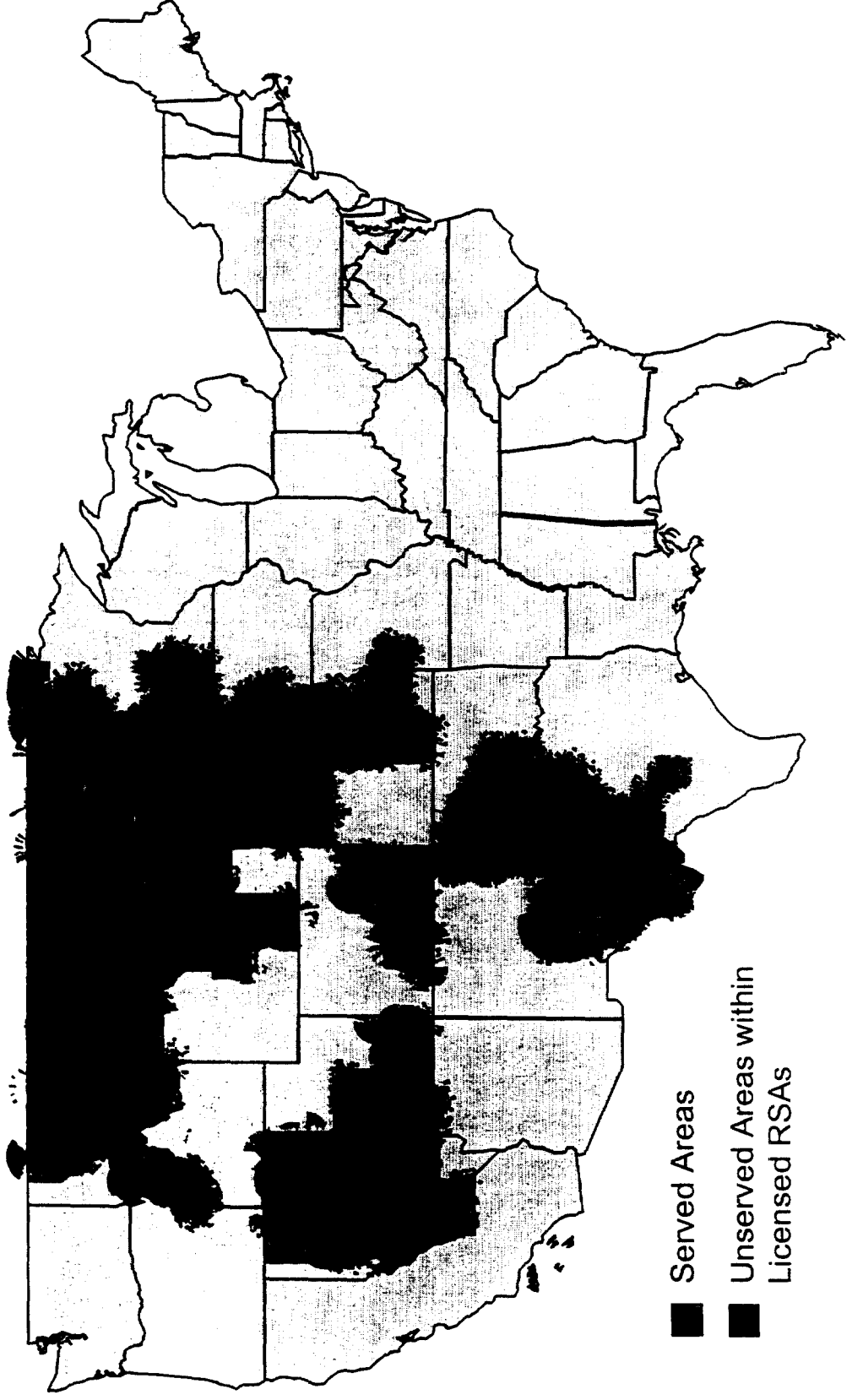
## Wireless Meets Universal Service Goal

- Ability to Serve Consumers in Rural and Urban Areas
- Public Interest Benefits of a Competitively-Neutral Universal System (Federal and State)
- Ability to Provide Required Universal Services Plus Additional Services
- Lower Costs and Lower Subsidies

# Overview

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## Western Wireless Perspective



# Overview

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## Wireless Advantages Over Wireline Systems in Providing Service to Rural Areas

- More Extensive Service Availability
- More Service Options
- Mobility which is Vital
- Lower Costs

# Overview

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## Wireless Provides Public Interest Benefits

- Greater Competition, Particularly in Rural Areas
- Rapid Delivery of Additional Service Options to the Public
- Bring Service to Unserved Areas
- Lower Subsidies at Federal and State Level

# Overview

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## Remaining Challenges/Obstacles

- Establishing and Maintaining Competitive-Neutrality Nationally
- Establishing Competitive Universal Service System in Territories Served by Rural (Independent) Telcos
- Establishing State Universal Service Rules that do not Disadvantage Wireless Carriers



# Universal Service Goals

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<u>Requirement</u>	<u>How Wireless Carriers can Meet this Goal</u>
Competitively-Neutral	<ul style="list-style-type: none"><li>• Provide Services in Competition with Wireline Carriers - 8 Licenses per Market</li><li>• Contribute to Fund Universal Service</li></ul>
All Americans	<ul style="list-style-type: none"><li>• Serve Consumers in Areas that are Not Served, Not Adequately Served, or Not Cost-Effectively Served by Wireline Carriers</li></ul>
Affordable	<ul style="list-style-type: none"><li>• Provide More Services at Lower Cost and/or Lower Subsidy</li></ul>
Telecommunication Services	<ul style="list-style-type: none"><li>• Provide the Supported Telecommunications Services Plus Additional Services</li></ul>

# Wireless Universal Services

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## **Prerequisites for Universal Service Provider**

## **Wireless Carriers?**

Common Carrier

Yes

Offer Supported Services throughout  
the Designated Service Area

Yes

Advertise the Availability of  
Supported Services

Yes

Designation as an Eligible  
Telecommunications Carrier  
by State

Yes

# Wireless Universal Services

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## Landline vs. Wireless

<b><u>Services and Features</u></b>	<b><u>Landline</u></b>	<b><u>Wireless</u></b>
Voice Grade Service	yes	yes
DTMF Signaling or Equivalent	yes	yes
Single Party Service	some, not all	yes
Access to Emergency Services	yes	yes
Access to Operator Services	yes	yes
Access to Interexchange Services	yes	yes
Access to Directory Assistance	yes	yes
Lifeline/Link-Up Toll Limiting Services	yes	yes
Data/Internet Capability	yes	yes

# Wireless Universal Services

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## Capabilities that Distinguish Wireless Carriers

- More Extensive Service Availability
- More Service Options
- Expanded Local Calling Areas
- Mobility
- High Quality and Reliability

# Wireless Universal Services

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## More Extensive Service Availability

- Service Availability Depends on Built Facilities in Wireless or Wired Service
- Wireless: 97% of population have access to wireless services
- Landline: 93.8% of households subscribe to landline telephone service with many households unable to receive service; e.g., Reese and Antelope Valley, Nevada

*Source: Preliminary Statistics of Communications Common Carriers, FCC (1997 Edition); Cellular CGSA FCC Filings.*

# Wireless Universal Services

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## Examples of Wireless' Extensive Coverage in Rural States

	Population Density (Pop/Sq. Mile)	Wired Penetration	Served by Wireless
Texas	64.9	91.3%	99.6%
Nevada	10.9	94.1%	98.0%
North Dakota	9.3	95.8%	98.0%
Montana	5.5	93.7%	98.0%
Wyoming	4.7	93.4%	99.0%

Source: Preliminary Statistics of Communications Common Carriers, FCC (1997 Edition); Cellular CGSA FCC Filings.

# Wireless Universal Services

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Wireless State-of-the-Art Equipment Enables Carriers to Offer More Service Options

## Network Infrastructure

## Wireline

## Wireless

Switching

Some Electro/Mechanical

State-of-the-Art  
Digital

Local Loops

Some Multi-Party Lines  
Some Older Limited  
Capability Loops

Dynamic Assignment  
Analog and Digital

# Wireless Universal Services

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Wireless Carriers are Capable of Providing Services Not Offered by Some Telcos Serving Rural Areas

<u>Network Services Offered</u>	<u>OPASTCO Wireline</u>	<u>Western Wireless***</u>
Voicemail	47.5%**	100%
EAS	39.1%*	100%
TouchTone	64.6%*	100%
Single Line Service	96.5%*	100%
911 Service	54.4%*	100%

*\*Keeping Rural America Connected: Costs and Rates in the Competitive Era, OPASTCO (1994)*

*\*\*OPASTCO Internet Site: <http://www.opastco.org/PRODSRVC.html>*

*\*\*\*Western Wireless services which we believe are representative of all wireless carriers*



# Wireless Universal Services

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## Wireless Carriers Utilize Extended Local Calling Areas (LCAs)

	<u>Wireline</u>	<u>Western Wireless</u>
Montana LCAs	Numerous*	1
North Dakota LCAs	Numerous	1

\* In Montana, for example, U S West has 16 extended LCAs and there are 18 independent LECs with their own LCAs.

# Wireless Universal Services

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- Mobility is Vital in Sparsely Populated Areas
  - Long Distances Between Towns
  - Low Density of Public Pay Phones
  - Rural Commerce Depends More on Mobility
- Access to Emergency Services is More Important

# Lower USF Costs

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## Cost is Inversely Related to Density

<u>State</u>	<u>Population Density (Per Sq. Mile)</u>	<u>Wireline Subsidy for Resident Lines*</u>	<u>Wireline Subsidy Per Population</u>	<u>Wireline Subsidy for All Lines*</u>	<u>Wireline Subsidy Per Population</u>
North Dakota	9.3	\$118.0	\$185	\$152.9	\$239
Montana	5.5	\$149.0	\$186	\$183.1	\$229
Nevada	10.9	\$42.3	\$35	\$51.6	\$43
Wyoming	4.7	\$51.7	\$114	\$60.3	\$133
Texas	64.9	\$400.7	\$24	\$466.0	\$27
All States	70.3	\$4,965.1	\$20	\$5,560.9	\$22

*\*Subsidies, in millions, based upon results of HAI Wireline Cost Model and benchmark revenues of \$31 per month for residential lines and \$51 per month for business lines.*

# Lower USF Costs

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## Wireless Cost is Substantially Lower in Rural Areas

<u>State</u>	<u>Average Line Density</u>	<u>Wireless Cost Per Line*</u>	<u>Wireline Cost Per Line</u>
Montana - Urban	59.04/sq. mile	\$56.31/mo.	\$22.22/mo.
Montana - Rural	5.77/sq. mile	\$92.90/mo.	\$188.84/mo.
North Dakota - Urban	41.48/sq. mile	\$58.71/mo.	\$22.74/mo.
North Dakota - Rural	3.90/sq. mile	\$77.35/mo.	\$178.21/mo.

*\* Based upon preliminary HAI wireless cost model results.*

# Lower USF Costs

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## Potential Subsidy Savings Using Wireless Technology

Estimated Subsidy for Wireline Carriers	\$5,560,924,012
Estimated Subsidy Using Wireless Technology	<u>\$2,936,667,737</u>
Estimated Potential Subsidy Savings (48%) *	\$2,624,256,275

*\* The overall subsidy is based upon HAI wireline cost model and the preliminary results of the HAI wireless cost model for Montana and North Dakota and estimated for the other states*

# Lower USF Costs

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## Wireless Will Greatly Reduce Subsidies

	<u>North Dakota</u>	<u>Montana</u>
Wireline USF Subsidies		
Federal Share	\$29.5	\$37.3
State Share	<u>\$88.5</u>	<u>\$111.7</u>
Total	\$118.0	\$149.0
Wireless USF Subsidies		
Federal Share	\$16.7	\$18.5
State Share	<u>\$50.3</u>	<u>\$55.5</u>
Total	\$67.0	\$74.0
Total Savings with Wireless Technology	\$51.0	\$75.0

# Public Interest Benefits of Wireless Solution

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- Greater Competition Especially in Rural Areas
- Availability of Additional Services
- Rapid Delivery of Additional Services to the Public
- Bring Service to Unserved Areas
- Lower Cost of Subsidies at Federal and State Level

# Public Interest Benefits of Wireless Solution

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## Competition Exists in the Residential Wireless Market

	<b># of Wireless Carriers*</b>	<b># of Landline Carriers</b>
Texas	4	1
Oklahoma	5	1
Colorado	5	1
Kansas	5	1
Nebraska	3	1
Idaho	2	1
Nevada	3	1
North Dakota	4	1
South Dakota	2	1
Montana	3	1
Wyoming	2	1
Minnesota	4	1
Missouri	4	1
New Mexico	4	1
Utah	3	1



# Challenges and Obstacles

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- Establishing and Maintaining a Competitive Universal Service System in Territories Served by Rural Telcos
- Establishing State Universal Service Rules that Do Not Disadvantage Wireless Carriers
- Maintaining a Competitively-Neutral Universal Service System that takes into Account the Unique Advantages of Wireless